

U.S. Application No. 10/763,651
Reply to Office Action dated July 11, 2005

PATENT
450100-04890

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A three-dimensional display apparatus comprising:
displaying means for displaying N images of different viewing points that can be viewed at N different viewing points, respectively;

image-forming means for forming said N images displayed by said displaying means at predetermined image-forming positions; and

light-condensing means for individually condensing said images to N observing positions that correspond to said N different viewing points, said light-condensing means being disposed at said image-forming positions at which said N images are formed,

wherein said light-condensing means is a transmission-type or reflection-type hologram screen having a function of diffracting and condensing adapted to diffract and condense images formed by said image-forming means to said N observing positions, and

wherein said display means are vertically shifted so that arrival positions of rays of light whose direction remains unchanged by said light-condensing means passing through said display means, which are not diffracted by said light-condensing means but advance straight, do not coincide with said observing positions.

2. (Currently Amended) The three-dimensional display apparatus according to claim 1, wherein ~~said~~ N is three or more.

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3. (Original) The three-dimensional display apparatus according to claim 1, wherein said images of said N viewing points are images of an same object captured from N different viewing points.

4. (Currently Amended) The three-dimensional display apparatus according to claim 1, wherein said light-condensing means comprises a hologram screen comprising [[a]] multiple ~~hologram~~ holograms or a multi-layered hologram multiple holographic layers.

5. (Currently Amended) The three-dimensional display apparatus according to claim 1, wherein said light-condensing means condenses said ~~picture~~ N images to predetermined observing positions on a predetermined observation plane.

6. (Original) The three-dimensional display apparatus according to claim 5, wherein said predetermined observation plane is a plane that is substantially parallel to said light-condensing means.

7. (Canceled)

8. (Original) The three-dimensional display apparatus according to claim 5, wherein a gap between two or more observing positions of said N observing positions is substantially equal to a gap between eyes of a human being, said two or more observing positions being positioned on the same horizontal line of the same observation plane.

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9-12. (Canceled)

13. (Currently Amended) A three-dimensional display apparatus comprising:
displays for displaying N images of different viewing points that can be viewed at
N different viewing points, respectively;

lenses for forming said N images displayed by said displays at predetermined
image-forming positions; and

a light-condenser for individually condensing said images to N observing
positions that correspond to said N different viewing points, said light-condenser being disposed
at said image-forming positions at which said N images are formed,

wherein~~[[:]]~~ said light-condenser is a transmission-type or reflection-type
hologram screen ~~having a function of diffracting and condensing adapted to diffract and~~
condense images formed by said lenses to said N observing positions, and

wherein said displays are vertically shifted so that arrival positions of rays of light
~~whose direction remains unchanged by said light condenser passing through said displays, which~~
are not diffracted by said light condenser but advance straight, do not coincide with said
observing positions.

14. (Canceled)